

news *VI*

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

BI-MONTHLY

REPORT

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UPS Plans to Build 220-222 MHz. Digital Network

Another large industrial giant has jumped on the "grab 220" bandwagon. United Parcel Service has filed very impressive ...and very late comments ...on the FCC proposal to reallocate two megahertz from the amateur 1 $\frac{1}{4}$ -meter band to the Land Mobile Service for narrow band amplitude compandored business use.

UPS is very concerned about the telecommunications strides made by their number one competitor, Federal Express. Fedex employs a very sophisticated digital mobile telecommunications system. Their drivers even have clipboard scanning radios. UPS doesn't have anything like that and plans to use the 220-MHz ham band to play catchup by building a nationwide data network.

The comments, which run to some 14 pages were authored on behalf of UPS by the prestigious Washington law firm of Wiley, Rein and Fielding. Richard Wiley, a partner in the law firm, was previously the FCC Chairman during the mid-1970's. The UPS comments were signed by Fred Fielding. Attached to the document is a Motion for Acceptance of Late Filed Comments.

UPS states they have included in their long range plans design and implementation of a nationwide private land mobile network to improve the efficiency of their package delivery service. Their plan is to use frequencies

within the 220 to 222 MHz band employing narrowband technology.

Even though the FCC has not yet acted on General Docket 87-14, United Parcel has already contracted with SEA, Inc. for rights to their ACSB technology and has created a UPS subsidiary, II Morrow, Inc., to produce the needed transceivers necessary for their 220 to 220 megahertz network.

UPS's comments close with the following summary:

"United Parcel Service of America, Inc., a future user of Private Land Mobile Services through the planned development of its own nationwide network supports the Commission proposal to reallocate the 220-222 MHz. band for exclusive use of Land Mobile Services."

"The public benefits of the Commission's proposal are clear. First the Commission's proposed allocation will make available several hundred of new channels for land mobile radio operators using narrowband technology. These channels will relieve the congestion within bands currently allocated to the Land Mobile Services - a condition that is worsening as demand increases."

"Second, the development of an extensive Land Mobile system such as the one

which UPS contemplates will inevitably lead to innovations and improvements in narrow-band radio technology and to a reduction in the cost of narrowband radio equipment."

"Currently, narrowband technology is used almost exclusively to exploit the space between existing wide band Land Mobile radio channels in the 150 MHz band. This limited amount of spectrum has been inadequate to stimulate the use and development of narrowband radio. The availability of 220-222 MHz will provide a much needed testing ground for narrowband technology and the development of cost effective equipment. Ultimately, refinements in narrowband systems will allow a more efficient use of scarce spectrum increasing the capacity of a given band by as much as five times over current channelization."

"To enhance the ability to develop quickly the equipment necessary to utilize the 220-222 MHz band, UPS has contracted with SEA, Inc., for rights to the latter's advanced narrowband technology and has begun to staff a UPS subsidiary, (II Morrow, Inc.) to insure the production of such equipment for UPS's planned system."

"The comments and oppositions to the Commission's proposal essentially make two arguments. (1.) Amateur radio operators need the spectrum to perform several essential functions (repeater stations, repeater station control, and packet radio) and (2.) the proposed reallocation would lead to undue interference to VHF television stations. Neither of these concerns, however, form a basis for rejection of the Commission proposal."

"The amateur radio community already has a generous allotment of spectrum that more than adequately permits it to carry out its operation. Moreover, the few amateur stations currently operating in the 220-222 MHz band can be located elsewhere with minimum disruption."

"Finally, the concern that use of the 220-222 MHz by Land Mobile operators might lead to interference with VHF television stations is not well founded or documented by the parties. The closest VHF channel is

separated by a full four megahertz from 220 MHz. In fact, the proposed separation between the VHF channels and the new allocation will insure that if interference could occur, it would be remedied by appropriate operating safeguards."

"Based on the many public benefits which will result from the proposed reallocation and the absence of countervailing arguments, UPS strongly urges the Commission to reaffirm its tentative conclusions and allocate the 220-222 MHz band for Private Land Mobile Services using narrowband technology."

The big question, is whether the FCC will accept the comments since they were filed six months late. An FCC official told us that such comments are usually rejected or accepted in the final Order. "Chances are good that it will be accepted."

Ordinarily late filed comments are not accepted, but UPS is just not another commenter. They are a very big companyand considered very important to America.

On February 16, the ARRL issued League bulletin No. 18 and went on record that it would strongly oppose acceptance of the UPS comments.

MORE ON THE TV ANSWER 220 PROPOSAL

As previously reported, another industrial firm, TV Answer, Inc. of McLean, Virginia, also has petitioned for a portion of the 1- $\frac{1}{4}$ meter ham band. Actually they requested a permanent allocation of one of three frequencies - with a 500 kHz band width. They selected 216.25, 218.25 and 220.25 Mhz.

The last 500 KHz spectrum slice lies in the amateur 1- $\frac{1}{4}$ meter ham band. The first two are presently allocated to the Maritime Mobile Service. TV Answer looked toward the ham bands when it was feared that the Commission might turn down the first two frequencies because of the close proximity of TV channel 13 at 210-216 MHz.

TV Answer, Inc. has proposed creating a return 200-MHz pushbutton radio link

between a consumer watching their TV set and a video programmer or station. The technology would allow the viewing public to immediately respond to inquiries and make decisions based on televised options.

The engineering statement supporting establishment of TVRS (Television Viewer Response Service) was completed by the consulting firm of A. D. Ring & Associates. The engineer that put together the engineering study for A. D. Ring was Harold Kassens, W4NDZ - an Advanced Class amateur from Arlington Virginia. Previous to becoming a consultant, Kassens was a high ranking FCC official in the Chief Engineer's office. He retired after 33 years of government service. We decided to phone him to find out why he was advocating reallocating spectrum from the 220-MHz ham band.

"It was the FCC that suggested that," Kassens said. "They came out with a proposed rulemaking to take that away from the amateurs and give it to Land Mobile. We had been concentrating on frequencies between 216 and 220 MHz for TV Answer from the Automated Marine Service."

"The Commission remains unconvinced that the Automated Marine System will even work. That service was intended for all of the large harbors throughout the United States but all of the big harbors have a TV Channel 13. Two marine communication services, Riverphone and Watercom, have asked for frequencies but this has not been granted since they are prohibited from operating within 105 miles of a Channel 13. TV Answer also thinks they will be the most popular in the large cities."

"When the Commission came out and said we are going to take two megahertz away from the amateurs, we asked them to include us. If there is two megahertz available, we would like to demonstrate that we could use part of it."

I asked Kassens if he had seen TV Answer's technology actually working. "It has been tested using prototype units. The units that we are going to put out in the field for our experimental operation are just now

coming into the company. The units will be put out into the homes within the next 30 days. We know the technology works."

"The units going out have switchable 20 and 40 watts power and a switchable pulse width of 20 to 40 microseconds. These units will only operate occasionally. They are not on constantly ...only when a viewer is sending data. One of the things it will be used for is home shopping networks. We are going to have 400 units at George Mason University that will be used for administering exams."

"The service can be legally allocated on any of the requested frequencies because it is (point-to-point) 'fixed radio'. The basic problem is potential interference to Channel 13. We selected spectrum from the 220-MHz ham band because if amateurs can operate there with almost any power, we sure wouldn't cause any problems with only 20 to 40 watts."

"There are no amateur repeaters below 222 MHz and the amount of inconvenience caused to Land Mobile ...or Amateur operations for that matter would be very limited. The service would have to be an exclusive nationwide allocation to the Television Response Service. We could not share spectrum because we would get knocked out. It wouldn't be an allocation to just one company. It would be to establish a new needed service that would be used by many similar firms."

"It was the Commission's decision to take away 220-222 (from the amateurs) when they determined that there was practically no activity there. It wasn't my idea to go into the amateur band. We would not have requested those frequencies if the FCC had not first suggested it. The Commission will have to decide what they think is the best use of the spectrum."

(Edited telephone conversation: Feb. 14, 1988)

NOVICE APPLICATIONS AT VEC SESSIONS

The following communication has been received by all VEC's concerning handling of Novice applications. It was authored by FCC, Gettysburg, PA, official, Marcus D. Stevens.

SAME DAY SHIPPING CHARGE: \$3.00 plus postage
(Be certain shipping charges are included.)
Multiple-choice answer and tells you which answer is correct.
Right! (One of each is only \$10.95 postpaid.)
Complete Morse Code Course: 0-21 w.p.m.=\$29.95, ppd) PLUS Postage \$1.25 75¢
Advanced Data Card \$4.00 \$3.50 \$3.00 plus postage \$2.50 \$2.00 \$1.50 \$1.00 50¢ each manual.

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"An increasing number of candidates who have passed the novice exam requirements are bringing their original Form 610 completed by their examiners to a VEC test session. This is in violation of Rule section 97.28(g) which states 'Within ten days of the administration of a successful examination for the Novice Class operator license, the examiner shall submit the candidate's application to: FCC, Gettysburg, PA 17325.'"

"Effective immediately, any candidate who brings an original 610 completed by his/her examiners should be told by the VE's that the candidate is not in compliance with 97.28(g) and he/she should give the Novice 610 to one of the Novice examiners and have the examiner mail the 610 to the Commission. Upon receipt of the Novice license from the Commission, the candidate should forward a copy to the VEC, who will attach it to the upgrade and mail it to the Commission. A temporary operating authority may then be issued."

"If a non-licensed candidate wishes to be tested for a Technician or higher operator license, then Elements 1A (5 wpm Morse code) and 2 (Novice 30 question written examination) must be administered by the three VE's who are administering the other elements."
[Letter: FCC Gettysburg, dtd: Feb. 9, 1988.]

● The Palm Beach Post reports local residents are fighting Florida Power and Light's intention to string 230,000 volt electric power lines near their property. Homeowners argue "...state and national studies show children who grow up near high voltage lines are 1.7 times more likely to develop cancer than other children." FPL said "The Electric Power Research Institute is conducting a study and when a standard is set, we will comply."

● The third annual City of Los Angeles Marathon will be held on Sunday, March 6, 1988 with Southern California amateur operators providing the majority of the communications for the event. Over 250 hams are expected to participate. Kenwood USA will provide the equipment. KN6NF will be used as the call for the marathon special event station and will operate on HF-SSB from 1600 to 2400 GMT. In addition, fifty Orange County

REACT volunteers will provide live runner position data to the press through their GMRS UHF band equipment.

● Carl D. Cook/A16V writes that he will be in Aruba for the month of March 1988 and will be operating in both the ARRL DX-Phone and CQWPX-Phone contests with the call sign, P4OV. QSL direct (only) to: 11407 Tower Hill Road, Nevada City, CA 95959.

STATUS OF HAM RADIO IN THAILAND

Amateur radio is slowly coming to Thailand. The new "Rules of the National Frequencies Classification and Management Board on the Amateur Radio Service" went into effect on January 1, 1988. The call sign issue has not yet been finalized, however.

Only Thai nationals age 15 and over can be licensed in Thailand although the government has reserved the right to recognize amateur licenses issued by a country entering into a reciprocal operating agreement with Thailand. The United States is looking into entering into such an agreement.

There are three classes of Thai amateur license, basic (novice) intermediate and advanced. Tests are given by the PTT (Post Telegraph/Telecommunications Department.) An amateur station may only be established at one's permanent residence or personally owned vehicle. Log books must be maintained for a year. At first, other than 2-meter (144-146 MHz) operation, only club stations can be installed. Equipment must be approved by the government and display a PTT inspected emblem.

There are now only ten countries that do not allow amateur radio operation. They are Vietnam (including Laos and areas of Kampuchea under Vietnamese domination), Albania, North Korea, Libya, Yemen, Burma, Bangladesh and Afghanistan. During times of conflict some countries (such as Argentina during the Falkland Islands war - and Poland during the Solidarity Union dispute) have temporarily suspended amateur radio operation. (Translation of RAST - Radio Amateur Society of Thailand - newsletter by Tony Waltham/G4UAV)

JANUARY VE PROGRAM STATISTICS....

	January	1986	1987	1988
No. VEC's:		*76	*76	*60

No Testing Sessions:	266	288	253
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	1986	1987	1988
ARRL:	50.0%	48.3%	32.4%
W5YI:	13.5%	24.0%	44.7%
DeVRY:	6.0%	5.9%	6.3%
CAVEC:	8.8%	8.0%	1.6%
Others:	21.7%	13.8%	15.0%
Year-to-Date Sessions:	266	288	253

No. Elements Admin.:	4211	4386	4409
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	1986	1987	1988
ARRL:	53.4%	55.8%	49.7%
W5YI:	14.9%	22.2%	31.7%
CAVEC:	7.0%	6.0%	.5%
DeVRY:	4.1%	4.4%	3.9%
Others:	20.6%	11.6%	14.2%
Year-to-Date Elements:	4211	4386	4409

No. Applicants Tested:	2945	2939	2599
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	1986	1987	1988
ARRL:	54.6%	58.6%	42.3%
W5YI:	17.2%	20.2%	32.8%
CAVEC:	5.8%	5.3%	.7%
DeVRY:	3.1%	4.6%	4.5%
Others:	19.3%	11.3%	19.7%
Year-to-Date Applic:	2945	2939	4409

Pass/Upgrade Rate, All:	62.6%	61.3%	63.3%
Pass/Upgrade Rate, W5YI:	63.1%	56.3%	56.9%
Applicants per Session:	11.1	10.2	10.3
Appl. per Session/W5YI:	9.3	6.7	9.2
No. Elements Per Appl./All:	1.4	1.5	1.7
No. Sessions Per VEC/All:	3.5	3.8	4.2

* = The FCC considers ARRL, W5YI, and DeVry to be 13 VEC's each since VEC's are appointed on a regional basis. The 13 regions are: Call sign districts 1 through 0 plus: Alaska (11) and Carribean (12) and Pacific Insular areas.(13)

[Source: FCC, Washington, D.C. 20554]

About 50 comments have been filed on the FCC's §Part 15 proposal (Docket 87-389) to allow very low power unlicensed operation across the spectrum ...including the ham bands. For the most part, the comments argue that the FCC is relaxing interference standards. According to the FCC, however, the RFI standards are actually being tightened. Comments close on this docket on March 7 ...replies by May 9th. While no comment time

extensions have been requested as yet, we understand some large firms are planning to do so. Of particular concern to amateurs are §Part 15 devices operating in so-called "General Use Consumer Bands." One of these is the 902-928 MHz amateur band whereby a short-range low-power communications device (such as a child's toy hand-held) could inadvertently trip a nearby amateur repeater allowing unlicensed amateur operation. The §Part 15 user would be required to take the device off the air. Unlicensed 902-928 MHz operation with field strengths of 50 millivolts/per meter @ 3 Meters has been proposed by the FCC.

AMATEUR RADIO CALL SIGNS

...issued as of the first of February, 1988.

Radio District:	Gp."A" Extra	Gp."B" Adv. Tech/Gen.	Gp."C" Novice	Gp."D"
0	WE0N	KE0SS	N0IVM	KB0BTH
1	NO1Q	KC1HU	N1FLR	KA1RMW
2	WD2P	KE2EH	N2HWL	KB2FAC
3	NN3E	KD3GI	N3FZE	KA3SQK
4 (*)	AB4GB	KK4WS	N4RZU	KC4DEN
5 (*)	AA5EG	KG5HA	N5MAK	KB5FGX
6 (*)	AA6GR	KJ6CY	N6RIV	KB6VQG
7	WJ7O	KF7GY	N7KKJ	KB7DUO
8	WA8J	KE8PW	N8JCV	KB8DWJ
9	NW9Y	KE9IL	N9HED	KA9ABF
N.Mariana I.	AH0E	AH0AD	KH0AJ	WH0AAH
Guam	KH2G	AH2BV	KH2DE	WH2ALK
Johnston Is.	AH3A	AH3AC	KH3AB	WH3AAC
Midway Is.		AH4AA	KH4AD	WH4AAF
Palmyra/Jarvis	AH5A			
Hawaii	(**)	AH6IU	NH6OG	WH6BWD
Kure Island			KH7AA	
Amer. Samoa	AH8C	AH8AD	KH8AF	WH8AAW
Wake Wilkes Peale		AH9AD	KH9AD	WH9AAH
Alaska	(**)	AL7JP	NL7MP	WL7BQK
Virgin Is.	KP2T	KP2BL	NP2CI	WP2AFU
Puerto Rico	(**)	KP4OO	WP4NF	WP4HTC

NOTES: * = All 2-by-1 format call signs have been assigned in the 4th, 5th and 6th radio districts. 2-by-2 format call signs from the AA-AL prefix block now being assigned to Extra Class amateurs.

** = All Group "A" (2-by-1) format call signs have been assigned in Hawaii, Alaska and Puerto Rico. Group "B" (2-by-2) format call signs now being assigned Extra Class.

[Source: FCC, Gettysburg, Pennsylvania]

JANUARY AMATEUR LICENSING STATS

	January	1986	1987	1988
First Time Amateurs:	1500	2299	1189	
Novice Class Upgrades:	647	668	884	
Technician Upgrading:	257	241	276	
General Class Upgrading:	116	309	255	
Advanced Class Upgrading:	77	170	175	
Total Amateurs Upgrading:	1097	1388	1590	
Total Purged Fm Service*:	873	510	779	
Total Novices Purged*:	535	396	355	
Change/Ham Census/Month	+759	+1438	-978	
Month End Census:	416615	421271	432411	

Extra	Advan.	Gen'l	Tech.	Novice	TOTAL:
(Jan. 1986)					
38624	98003	117110	83879	78999	416615
9.3%	23.5%	28.1%	20.1%	19.0%	
(Jan. 1987)					
41255	97786	115616	85536	81079	421271
9.8%	23.2%	20.5%	20.3%	19.2%	
(Jan. 1988)					
43970	98408	113958	93675	82400	432411
10.2%	22.7%	26.3%	21.7%	19.1%	

Club/Military/RACES Sta.	2737	2568	2395
Total Active Stations:	419352	423839	434806
Percent Increase:	.8%	1.1%	3.1%

NOTE: *=Amateurs purged from service represents amateurs who have been deleted from the Master File. The Master File is made up of active licensees plus amateurs who are still within the grace period for renewing without further testing. There are 473,732 amateurs in the total Master File.

[Source: FCC, Gettysburg, Pennsylvania.]

ABC-TV FIELDS OLYMPIC HAM STATION

The Calgary Amateur Radio Association operated the official amateur Olympic station VX6OCO around the clock on 20 and 15 meters. ("OCO" is the Olympic Committee Organization.) They have a special commemorative certificate available which they openly promoted on-the-air at \$3.00 "American funds" each. Many questioned the high cost.

Not to be outdone, since U.S. licensed amateurs can operate in Canada without further reciprocal licensing, ABC engineering types imported by ABC Television New York and Los Angeles to handle the Olympic technical production work set up their own

unofficial "ABC-TV Olympic station". The primary effort to get the ABC Olympic ham station operational was made by K6CLX of ABC/Los Angeles.

The HF/VHF/UHF amateur gear was supplied by ICOM and shipped directly to the ABC broadcast center in Calgary, Alberta. Creative Design antennas provided ABC with various beam, "Vee" and dipole antennas. As a result, ABC hams were able to operate on nearly all ham bands between 80 meters and 1.2 GHz. We were told that the American Olympic station really provided a lot of off duty fun for the ABC production staff who were in Canada nearly a month (and are still there as this is being written.)

Among others, active were Fred Weir/-W2UB, Marv Bronstein/K2VHW, Mike Siegel/-WB2FCP from New York -- plus KB6IUA, K6CLX, KS6SP ...from ABC/Los Angeles. The ABC Olympic station operated HF from the broadcast center during the day on 15 and 20 meters -- and 40 and 80 during the evening. ABC team members used their personal ham call signs, portable VX6. A portable ABC bulletin board packet station signing KD6TH-1 was linked on 20 meters through the official Olympic station, VX6OCO at 14.107 and much traffic was passed.

Fred Weir/W2UB told us that he rented an airplane in Calgary via a (\$10 cost) Canada/U.S. reciprocal pilot licensing arrangement. He said that the special ABC Olympic station QSL would contain an aerial photograph taken by the ABC ham team over the Olympic layout in Calgary. The ABC-TV Olympic QSL available from: W2UB, 109 Hammond Road, Centereach, NY 11720, for an SASE.

CANADA-SOVIET POLAR BRIDGE SKITREK

Canadian coordinator (and CRRL president) Tom Atkins, VE3CDM/VE8UA, and chief Canadian operator Barry Garratt, VE3CDX/-VE8CDX, have just returned from Moscow, USSR, where they have finalized the amateur communications arrangements with Leonid Labutin, UA3CR, and the Soviet amateur group. The skiers are scheduled to leave Cape Artichesky on Severnaya Zemlya next week on

their 1,100 mile ski trek over the North Pole to Cape Columbia on Ellesmere Island.

For more than three months of this hazardous journey, daily radio communication will be maintained between the expedition and the teams of Soviet and Canadian amateur radio operators at base stations in Severnaya Zemlya, Resolute Bay on Cornwallis Island ...as well as Moscow, Dikson, Ottawa and Toronto. The special call sign for the main Canadian base station at Resolute Bay is CI8C which went into operation on February 24th. (QSL via Box 313; Don Mills; Ontario Canada M3C 2S7)

ICOM America provided all of the amateur radio equipment for the HF/VHF base stations as well as 2-meter handie-talkies which will be used by the skiers for position reports and communication with the supply drop aircraft.

Using a unique lashup of SARSAT/-COSPAS, the search and rescue satellites and the UoSAT-OSCAR 11 amateur satellite with its "talking computer" onboard, the skiers will hear their location read to them over the 2-meter ham band as UoSAT passes overhead about every 100 minutes.

To publicize the expedition, the Canadian Department of Communications has authorized amateurs in the Northwest Territories (only) to use the special prefix CI8 from February 15 until June 15.

The Canadian Radio Relay League is offering a bilingual (English and Russian) "1988 Polar Bridge Commemorative Diploma" for 2-way amateur radio contacts with:

- (1.) three VE8 Northwest Territories stations;
- (2.) three different stations in Asiatic RSFSR of the USSR (Usually UA9, Ø or 3);
- (3.) one skitrek base camp station in either Canada or the USSR;
- (4.) one station from the National Capital Region of Ottawa and;
- (5.) one station from the National Capital Region of Moscow, USSR.

Nine contacts are required in all.

All QSO's must be made between February 15 and June 15. Application, certified

log data (do NOT send QSLs) and \$5 award fee (or 10 IRC's) go to: CRRL Awards Manager; Garry Hammond/VE3XN; 5 McLaren Avenue; Listowel, Ontario Canada N4W 3K1. A short-wave listener version of the award is also available for certified loggings.

Technology Report, Digital Audio Tape W2NSD/1 PROPOSES DAT COMPROMISE

Wayne Green, W2NSD/1, has stepped into the stalemate that has developed between the music recording industry and the latest audio consumer electronics breakthrough, the digital audio tape (DAT) recorder. House bill H.R.1384 barring DAT recorders recently received sub-committee approval. There is also a similar bill in the Senate, (S-506).

Green revealed his proposal while chairing a panel on DAT during January's Consumer Electronics Show held in Las Vegas, NV. The compromise would allow electronics manufacturers to import DAT recorders for a period of two years. At the end of that time, an independent study would be conducted to determine the effects of DAT on the sale of pre-recorded music.

If the study shows that the recording industry has suffered substantial losses due to unauthorized home and commercial duplication, electronics manufacturers will be asked to pay a royalty on blank DAT tape sales ...the proceeds of which will reimburse the recording industry.

DAT proponents point out that historically, similar technological advances (such as the analog cassette recorder and the VCR) have helped -- rather than harmed -- their respective industries.

In the February/March issue of the Green Congressional Technology Newsletter, Green points out that DAT isn't merely an entertainment medium. "I see incredible potential applications for digital tape (DT) as a computer storage medium," he says. "One tiny DAT cassette will hold ...1.2 gigabytes of (computer) data. In an address book, that's about 35 million names and addresses." Green adds, "At a time in our history when the U.S.

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is alarmingly behind in high-tech production, we should take every opportunity to capitalize on our strengths — one of which is computer software."

"The computer applications are mind-boggling," Green writes, "...reference material for doctors, lawyers, engineers; an encyclopedia; an unabridged dictionary that fits in your shirt pocket. But, until DAT recorders are available in this country, these computer applications can't be developed." Green foresees tiny microcomputers with DAT storage capacity equal to that of mini-computers ...even fiber-optic or satellite data delivery systems to update colossal DAT databases.

Green is now conducting a worldwide survey of DAT manufacturers and recording industry leaders to determine his compromise's popularity. The results will be published and made available to members of Congress and other interested parties. Green hopes his proposal will end the battle and free both computer and audio developers to take advantage of digital audio tape technology.

INTERNATIONAL MARCONI DAY EVENT

Amateur stations in England, Ireland, Canada, Newfoundland, Italy and the United States will honor Guglielmo Marconi, the great Italian inventor who first conceived the idea of using electromagnetic waves for signalling. The International Marconi Day (IMD) celebration is scheduled for April 23rd, 1988, the Saturday nearest to Marconi's birthday.

GB4IMD in Cornwall, England, will operate from Poldhu Cove where Marconi carried out his first trans-Atlantic transmission. EI2IMD will be on from where Marconi carried out his first Irish experiments in Crookhaven. In the United States, K1VV/IMD will be at the Cape Cod South Wellfleet site of first USA to Europe contact in 1903.

The Society of Newfoundland Radio Amateurs (SNRA) will operate VO1IMD at Signal Hill in St. Johns, from the exact spot where the first trans-Atlantic signals were heard by Marconi on December 12, 1901, from Poldhu. The Sydney Amateur Radio Club of Nova Scotia will establish VE1IMD at the

Marconi Museum in Glace Bay from the site of first East/West trans-Atlantic transmission. IY4FGM will be operating from the Marconi birthplace in Bologna, Italy.

Phone (SSB) operation will be take place on five bands: 3.770-3.780 (80 Meters), 7.070-7.080 (40 Meters), 14.270-14.280 (20 Meters), 21.250-21.260 (15 Meters) and 28.530-28.540 (10 Meters.) A special award is offered to amateurs that work any five of the six International Marconi Day stations. (Award claims go to: Cornish Radio Amateur Club; P.O. Box #100; Truro, Cornwall, United Kingdom TR1 1XP.

AMATEUR INDUSTRY MEETING IN MIAMI....

ARRL Executive Vice President, Dave Sumner, K1ZZ, distributed an eleven typewritten report to members of industry at the last amateur industry meeting held in Miami a couple of weeks ago. Highlights of the report:

Docket 87-14: ARRL continues to fight FCC's proposed reallocation of 220-222 MHz to Land Mobile. ARRL and several thousand amateurs filed extensive comments. Dozens of Congressmen have written the FCC expressing support of the amateur position. "Empty (Commissioner) chairs" at the FCC and Private Radio Bureau personnel changes could affect the FCC's handling of this docket. The matter will probably come before the FCC in the second quarter.

Archie Comic Books: First printing (100,000) was shipped with 745 youngsters signing up for the Archie Radio Club as of November. A second printing (with 37,687 distributed) has resulted in 560 more members. Questionnaire sent to Archie Club members: 94% thought comic was helpful, 96% wanted to become hams, 77% working on a license ...and 22 had actually become amateur radio operators.

NEW WORLD OF AMATEUR RADIO VIDEO: League ordered 1,300 with 444 copies on loan to clubs and instructors, 146 went to teachers, 96 copies given away (21 to National Geographic) ...75 to ARRL Section Managers. Ten one-inch video tapes went to Public/Educational broadcasters. With only 285 copies actually sold, League would like amateur

10 or more Quantity \$9.90 plus postage
5-9 \$9.50 plus postage
1 Ea. \$4.00 plus postage
Test Manual: \$4.00 plus postage
Novice Tech. or Gen. \$4.00 plus postage
HOLDING AMATEUR RADIO OPERATOR CLASSES? We have them!
and need low-priced student manuals? We have them!
Every manual contains every word-for-word question.
W5YI-VEC P.O. Box #10101-N Dallas, Texas 75207

radio dealers to "embrace the program." Lots of copies are in circulation with duplication actively encouraged. "It has been fed via C-band satellite at least twice, once with Tony England and myself co-hosting..." Feedback has been very positive, criticisms rare ...although some would like a shorter version.

Novice Enhancement: "...the numbers of Novices have not been discouraging, as some have suggested, and are running about 40% ahead of two years ago. ...The main idea was to improve the Novice privileges to help turn inactive license-holders (present and future) into active hams. The verdict is in: Novice Enhancement has definitely activated the 10-meter band between 28.3 and 28.5 MHz, and upgrading figures are up. Even so, we need more publicity above Novices now having meaningful privileges and about how to give Novice exams. (See note below. League apparently later agreed that Novice Enhancement statistics were not as good as anticipated.)

League Strength: ARRL membership stands at about 150,000 "...up more than 6,000 in a year. Sometime this year we will surpass our all-time high (in the CB boom) and go on to about 161,000 members by year's end."

ARRL Novice Survey: 4,000 Novices were surveyed at random in December with 426 questionnaires (10.7%) returned so far. ...26% are League members, 88% homeowners, 51% have personal computers, 2/3rds don't have - or don't know they have - a local radio store.

Largest occupational group is "retired", 1/3 never get active, another 1/3 get active the first year and then lose interest, 33% perceive the cost of equipment to be inhibiting, ("While this is not a new subject, is it possible for one or more manufacturer(s) to look seriously at offering some low-cost equipment, perhaps an SSB transceiver for the 10-meter band in the vicinity of \$150?")....

Retirees and Empty Nesters: A pilot recruitment project will be established in the Tampa/St. Petersburg area. More info to follow.

VANS: An ARRL survey of ham radio equipped USA touring vans suitable for amateur radio demonstration/recruitment indicates that

the vans are widely available. Sumner suggested that the need was really for a program to develop a presentation package and van deployment plan.

'OPERATING AN AMATEUR RADIO STATION'

This 40-page ARRL booklet, discontinued a few years ago, may be replaced as an inexpensive hand-out designed to tell first-year hams what they need to know to get on the air and to become otherwise active in Amateur Radio. Sumner asked if there was industry interest in suggesting content, assisting with cost and distribution ...and actually doing some of the distribution "...such as making copies available at retail outlets or inserting them in shipments of equipment to Novices."

On the other hand, it was also reported to us by other members of industry that the ARRL did agree that the "numbers" were really "not there" to report that Novice Enhancement was a success.

The ARRL's Executive Committee (who also serve on the Board of Directors) have agreed to meet with amateur industry spokesperson, Evelyn M. Garrison/KA7LPK of ICOM, to hear what the amateur industry encourages the League to do about a "Code Recognition" type of entry level license. Industry got the impression that "by the end of the year", that a less rigid Novice code testing procedure might be supported by the League.

The amateur industry, who is made up of hams, went on record as stating they did not want to drop the Novice requirements but "...we feel today's Novice exam does not truly test the Novice on the skills he is going to use on ten and 220. The code test is really a 'pressure cooker' type of exam. The emphasis should be taken off of code and placed on good operating procedures. It isn't necessary that beginners be able to converse in code with every letter, number, punctuation mark."

We were also advised that members of industry would be looking at the Element 2 Novice question pool that is currently under review and recommending more basic operating ...rather than circuit and electronic questions.

REGULATIONS AND ALLOCATIONS

A one page primer on spectrum management

Since radio waves do not respect international boundaries, coordination among nations, radio services and stations within each service is required if operation is to remain interference free. Radiocommunication regulation in every nation is a government function.

The 150+ nation strong International Telegraph Union (ITU) was formed in 1865 to extend telegraphy circuits across national borders. Telegraph operators used to physically hand messages to their counterparts at their national border. Telegraph was changed to Telecommunication in 1932 to reflect expanded communication technology. In 1947, the ITU became a United Nations agency and moved from Berne to Geneva, Switzerland.

Delegations from the ITU nations meet periodically to insure international telecommunications order. The ITU allocation plan divides the world up into three geographical regions. North and South America are in Region 2. Their regional and international conferences conclude with agreement on the where specific types of operation will take place. Without this agreement, you wouldn't be able to communicate internationally by ham radio. The last general overhaul of the radio spectrum took place in 1979 at the World Administrative Radio Conference.

Administrations can get around internationally agreed upon spectrum allocations by invoking the legal maneuver of "taking an exception" at these conferences. Thus no country is really bound by any ITU agreement if they feel it is not in their best interest. Even if a nation fails to take an "exception", there is an escape clause which allows use of any band for any purpose as long as it does not cause interference to authorized services. Nations also have been known to interpret ITU agreements - and what constitutes interference. In the U.S., "Temporary", experimental, national defense, and emergency circuits can be authorized anywhere.

The basic document controlling telecommunications in the United States is the Communication Act of 1934. It established the

Federal Communications Commission, an independent agency charged with administering non-government wire and radio communication. The FCC does not regulate spectrum used by the U.S. government. That is done by the National Telecommunication and Information Administration, NTIA. The FCC allocates the radio spectrum in keeping with international agreement and §Part 2 of its Rules.

The last international radio conference, WARC-79, had some conditions in the fine print that apparently few amateurs are aware of. They have already shortened the ham bands (160 meters was reduced to make way for expanded AM broadcasting.) The VHF and higher level ham bands are particularly vulnerable. Improvements in satellite and addressable digital technology have transformed what was once considered short range spectrum into extremely valuable worldwide cost-effective data circuits.

Contrary to what you may think, the possibility that the 220-Mhz ham band could be reallocated to other services should not have come as a total surprise. In implementing the Final Acts of WARC-79, the FCC said (Docket 80-739, November 18, 1982) that although the ARRL (among others) wanted the international Fixed and Mobile 220-225 Mhz allocations deleted, "The current and future spectrum requirements for the 220-225 MHz band are undefined at the present time." The Commission further stated their intention to conduct a joint FCC/NTIA study to develop a permanent allocation for the 220-MHz band.

Docket 87-14 was the result. As you know, the FCC's Office of Science and Technology plans to divvy the 220-225 MHz band up with three megahertz going to the amateurs - and the lower two to Land Mobile narrow-band operation. Fortunately our three megahertz is where most amateur operation and all repeater operation takes place.

The amateur community should also be aware of U.S. WARC Exception No. 38. The United States reserved the right to operate fixed and mobile stations on a primary basis in the 890-960 MHz bands. The sparsely used 902-928 MHz ham band is a shared band ...and probably the site of the next spectrum attack.